SUMMARY OF PARTICIPANT FEEDBACK

SECTION 316(B) PUBLIC MEETING

SEPTEMBER 10-11, 1998

Discussion Topic 1 - Best Technology Available

- Some participants suggested that closed-cycle cooling should be added to EPA's list of potential BTA technologies.

- Some believed the capacity of cooling water intake structures (CWISs) equates to the flow of the structure. They stated that Cooling towers were one of the best means for reducing intake flow. Therefore, cooling towers should be included as a potential BTA option. It was noted by one that it does not make sense to exclude cooling towers since it is known that their use provides a means to achieve the goals of Section 316(b) (i.e., that of minimizing adverse environmental impacts). It was pointed out that cooling towers were part of the cooling system and not the intake structure. Therefore, cooling towers would not be an appropriate BTA. However, others stated that flow reduction, or capacity could be an appropriate BTA.

- Some participants stated there was a direct relationship between reducing intake flow and reducing adverse environmental impacts. Others did not agree and argued that there was no such relationship on a national basis.

- Some noted that Congress gave EPA the authority to look at capacity factors; however, these factors should only be taken into account by technologies that can be implemented on cooling water intake structures. EPA should not require operating standards because the Agency has no authority to do so under the statute. Others disagreed with this point and indicated that Congress did intend for capacity to be one of the main factors evaluated for BTA determinations. It was noted that in the 1970's EPA had proposed permit conditions for thermal performance at plants leading the facility to believe that cooling towers were the only technology that would allow them to meet the permit condition.

- Some believed BTA should be decided on a national basis using an effluent guideline-like approach for developing a performance standard. It was noted that this approach would ensure uniform standards. Others believed using an effluent guidelines-like approach would not be feasible since the standards are different (BAT versus BTA).

- Some believe that it does not make sense for EPA to look at BTA on a national basis because there are too many site-specific factors that impact a technology's design, performance, and cost. It was also noted by some that site-specific standards or case-by-case determinations were appropriate because they would allow for better environmental

protection as well as take into account the site-specificity of the issues. In addition, they also believe that a level playing field would be ensured by a consistent process.

- Some commented on the need to categorize types of sources based on factors such as "new" versus "existing" and volume of flow. They felt that BTA should be developed on the basis of these categories. Examples included case-by-case BTA determination for existing sources and a performance standard for new sources. Some thought that this new source performance standard should be cooling towers because it is their belief that most new facilities are implementing these technologies and that a precedent has been set to dramatically reduce intake flow (and thus adverse environmental impacts).

- Some recommended that experimental technologies not be implemented alone without other "proven" controls to supplement them. Others cautioned that EPA should not exclude the use of experimental technologies. Such an action could be counterproductive and discourage the innovation of more efficient technologies.

- Some stated that successful technologies other than the reduction of flow by cooling towers included Ristroph Screens, wedgewire screens, and Johnson screens. Some pointed out that the technologies implemented on cooling water intake structures (and on EPA's list of potential BTA options) reduced only impingement of later life stages and were not effective in reducing entrainment of eggs and larval stages. Others stated that there were technologies (including location of the structure) that addressed both impingement and entrainment. It was noted, that at a plant on the Hudson River, successful experimentation had ensued with a porous dike in the shape of a boom to address entrainment issues.

- Some rejected the notion of using impingement and entrainment counts as sole measures of the efficacy of a technology's performance (e.g., buckets of fish). Others rejected using population-based measures as a means to determine technology efficacy as such measurements were difficult. Some suggested using these two types of measurements in combination and that there had been a precedent established under previous Section 316(b) rulemaking activities to do so.

- It was noted that the NPDES permit term of 5 years would allow for the reevaluation of technology performance.

- One commenter suggested that national standards should allow for a variance similar to "fundamentally different factors" for effluent standards. Others stated that the statutory language of Section 316(b) did not provide for a variance.

- Arguments stated against using cooling towers and other technologies as a single prescriptive technology included energy penalties, other environmental issues, reliability, and distribution. It was noted that a single prescriptive technology could effect competition, whereas others stated that a uniform standard was needed to create a level

playing field in the emerging energy market. One commenter stated that a single technological solution to such a complex, site-specific problem would be deemed bad policy.

- Some promoted a risk management approach to determine those sites with the greatest risk of adverse environmental impacts. It was suggested that within the context of site-specific determinations of BTA, that the approach or decision criteria to be used in making the determination, be set and implemented uniformly.

- Some recommended that the flow reduction achieved by cooling towers be used as the basis for national performance standard using the reasoning that the flow reduction equates to impact reductions. Others stated that the reduction standard of 90-98% of flow could not be achieved by facilities without substantial operational problems.

- Some participants suggested that adverse environmental impacts be interpreted broadly, while others stated that impingement and entrainment were the impacts specifically addressed by Congress.

Discussion Topic 2 - The Role of Cost in Implementing Section 316(b)

- Some participants thought costs should play a significant role in the permitting process. Others thought that costs should not be considered.

- There were different interpretations of the language of Section 316(b): While some thought that the terms “best” and “available” included cost considerations, others pointed out that economic achievability was specifically mentioned in some Sections of the Clean Water Act but not in Section 316(b).

- Participants in favor of including costs also pointed out that the legislative history of Section 316(b), as well as recent statutes and Executive Orders, imply that costs should be taken into account.

- There was disagreement about when costs should be take into account and if a cost test is necessary. Some argued that costs should be considered early in the process while others thought that costs should be only considered after BTA was determined.

- Participants pointed out that there are two distinct types of costs: the cost of implementing Section 316(b) technology and environmental costs. All participants agreed that all relevant costs should be taken into account.

- It was pointed out that costs needed to be taken into account because many of the facilities were small. Another participant argued that a wholly disproportionate test would take care of this problem.

- There was discussion on whether those who harm aquatic organisms were, and should be, paying for the damage done.

- Most participants agreed that if costs were to be considered, a benefit-cost test would be the appropriate test. However, there were different opinions about whether such a test should be a "wholly disproportionate" or a "reasonably proportionate" test. It was also suggested that incremental costs and benefits are the appropriate measures to compare.

- It was further pointed out that benefit-cost analyses can be a valuable way of organizing information to help make informed decisions.

- Participants pointed out the difficulty of monetizing benefits and the uncertainties inherent in benefit-cost analyses. Uncertainties include the estimation of benefits as well as future costs of technologies. It was mentioned that historically the cost of technologies have dropped over time and that future costs are likely to be less than current costs.

- One participant pointed out that uncertainty can be incorporated and that there are more effective ways of measuring benefits and costs today than in the past.

- It was suggested that instead of looking at total costs, one should consider a unit cost, e.g., cost per kilowatt hour generated.

- Some participants stated that affordability should be take into account. Others argued that in the spirit of emerging market competition, plant rendered unprofitable by environmental requirements should go out of business.

- It was argued that an affordability test should not be applied at the facility level. Instead, affordability should be considered in terms of "wide-spread economic dislocation."

- It was further suggested that cost tests be done by subcategory, e.g., size or age.

- Some suggested that a cost test should be applied at the facility level because the vertical integration of utilities no longer exists. Others suggested that costs should be analyzed at the national level or at the watershed level.

- Participants also suggested a two-tiered approach that would consider both facility-level and national costs.

Discussion Topic 3 - The Role of Mitigation in Implementing Section 316(b)

- Some believed that mitigation should play absolutely no role in BTA for Section 316(b). They stated that Section 316(b) was technology-based, therefore, BTA must deal with the specific harm which is impingement and entrainment. Others believed that there was a

role for mitigation. It was generally recognized that it would not be BTA. Therefore, it would need to be offered and not mandated.

- A suggestion was made to look at NEPA regulations for example of a hierarchical approach for addressing impact and that includes, as a last step, mitigation actions.

- A suggestion was made to refer to mitigation projects as "enhancements." This terminology was used in conjunction with fisheries. Others were uncomfortable with this term.

- Some believed that mitigation might do more to help natural resources than a technological fix and would go on in perpetuity. However, others stated that there are instances where budget and political issues might impede the long term benefits and that in some cases, maintenance of the mitigation activity was important for the continued success and benefits.

- The utilities proposed that "enhancements" be allowed. The basis should be as follows.
  - The "enhancements" should be voluntarily offered because it is not BTA.
  - The action should directly benefit the population impacted.
  - Monitoring should be performed to evaluate the effectiveness.

- Some were concerned that voluntary actions would not be enforceable. Others disagreed and stated that there could be a negotiated permit special condition that would then make it enforceable.

- Some were concerned that allowing mitigation in lieu of BTA would be a complete abdication of EPA's responsibility to implement and enforce the section of the Act.

- Some were concerned that you could not predict or measure the effectiveness of the mitigation alternative. Others stated that there must be some goal to be accomplished and a means to measure the achievement of these goals. Some cautioned that it could be very expensive to provide a baseline against which to measure and that preplanning was necessary.

- Some stated that the use of mitigation provided the needed flexibility to stakeholders for proper management of fisheries and allowed for creative natural resource management beyond the level that the statute required.

- Some saw the role of mitigation up front, while others saw the role of mitigation occurring as a last resort or as an addition to BTA.

- Some stated that the impacts of entrainment were widespread and therefore, the mitigation activity should take that into account.

- There was general agreement that there needed to be an evaluation of any mitigation activities and that could be dealt with through NPDES permit conditions. Others stated that it was difficult to demonstrate actual benefits because of the variability in environmental data.

- Some believed that the design, implementation, and evaluation should be site-specific.

- It was recommended to allow flexibility on the issue of length and scope of mitigation alternatives and that EPA merely indicate that it has to occur.